

the agricultural field.” Thus, it is believed that Claim 25 clearly and unambiguously defines the invention.

The Examiner rejected independent Claim 11 under 35 U.S.C. 103(a) as being obvious over the combined teachings of the Bellanger and Monson et al. references. This rejection is also respectfully traversed.

Claim 11 defines the invention as an apparatus for mapping the performance of an agricultural tractor during operation in an agricultural field. The apparatus includes a sensor that generates a signal that is representative of an operating characteristic of the agricultural tractor. The apparatus further includes a controller that is responsive to the signal from the sensor and that generates a map of the performance of the agricultural tractor during operation in the agricultural field.

The Bellanger reference discloses a vehicle performance monitoring system for displaying the values of a plurality of performance parameters of a vehicle (10). The apparatus includes sensors (21,22,23,24,25) for sensing data indicative of the performance of the vehicle, processing means (40,42) for processing this data to provide the parameter values, display means (35) for displaying said parameter values, and operator command means (37,38) for controlling the operation of the apparatus, including the selection of which performance parameter is to be displayed on the display means and the initiation of processing routines by the processing means. Additionally, the apparatus includes memory means (43,44,45) for storing performance information relating to the performance parameters. The processing means (40,42) is arranged in response to a predetermined operation of the operator command means (37,38) to store in the memory means (43,44,45) a performance parameter value for each of a number of so-called relative mode parameters. These stored values are used as reference values so that subsequently, when the apparatus is operated in so-called relative mode, the current performance parameter values for the relative mode parameters are processed by the processing means (40,42) and are each displayable on the display means (35) as proportions (e.g. percentages) of their respective reference value. Thus, as noted by the Examiner, the Bellanger reference does not show or suggest the claimed structure wherein a controller is responsive to a

signal representing an operating characteristic of a vehicle generated by a sensor for generating a map of the performance of the vehicle during operation in a field.

U.S. Patent No. 5,220,876 to Monson et al. discloses a variable rate fertilizer spreading apparatus for spreading a precise amount of multiple types of fertilizers upon a field based upon a location in the field. The system includes a controller accessing a soil map indicating the type of soil for each portion of the field, several fertilizer maps storing the desired fertilizer level of each of the fertilizers stored in product bins on the tractor, and several status maps each indicating the current fertilizer level at various locations of the field to be fertilized. By accessing the speed of the tractor via a speed indicator, and ascertaining the location of the tractor in the field via a position locator, such as a LORAN or GPS system, an expert system determines the dispensing rate of each of the fertilizers based on the various maps and the position and speed indicators such that the proper dispense rate of the fertilizers from bins is set to attain the desired level of fertilizers. The expert system accesses standard and proprietary data tables and processes complex calculations taking into account the interaction effects of multiple fertilizers being dispensed upon a particular type of soil, as ascertained from the soil map. Thus, each portion of a field can be characterized and fertilized such that the resulting level of each of the fertilizers matches the fertilizer maps after spreading fertilizer, where no predetermined path of vehicle is necessary. The current fertilizer level map is updated after a dispensing pass to provide a real-time record. Thus, the Monson et al. reference does not show or suggest the claimed structure for mapping the performance of an agricultural tractor during operation in an agricultural field.

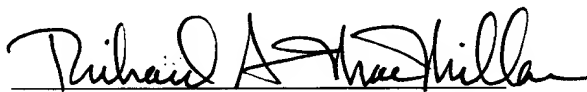
The Examiner refers to the portion of the disclosure of the Monson et al. reference at Column 8, Lines 45-55 as being relevant to the claimed invention. That portion of the Monson et al. reference states that:

“a monitor 140, such as a color CRT monitor [is provided] for visually providing an operator via a line 141 a status of the various systems, as well as a digital map with a cursor indicating the relative position of the tractor 11 in the field. Thus, a color output providing graphical representation of data, as well as displaying all desired

data simultaneously, eases the operator's need to understand several difficult consoles while operating system 10.”

Thus, the Monson et al. reference discloses that the system may include a monitor that displays a digital map containing a cursor indicating the relative position of the tractor in the field. The Monson et al. reference does not show or suggest the specifically claimed structure wherein “a controller generates a map of the performance of the agricultural tractor during operation in the agricultural field” (emphasis added). This performance mapping is an important feature of the claimed invention and is shown in Fig. 2 of the application. Thus, the claimed invention is clearly patentable over the disclosure of the Monson et al. reference.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Richard S. MacMillan", written over a horizontal line.

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